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# Space Modernization Strategy

**By Karen Oliver**

In the Army Space community, several of the stakeholders such as the signal, intelligence and engineer communities work their own separate set of priorities. When these priorities reach the Joint community, they arrive piecemeal and without a single voice that says this is the priority for the Army in Space. The development of a Space Modernization Strategy grew out of this need for the Army Space community to clearly articulate Army priorities for Space capabilities and how these capabilities will enhance the ability of the Objective Force across the full spectrum of future conflicts. The goal of the Space Modernization Strategy is to identify and prioritize current and future Space capabilities that will support Objective Force requirements and provide critical Space support to the Warfighter. The Objective Force will not only exploit current, planned and programmed Space systems, but evolving Objective Force requirements will also help shape the design of future Space systems and their architectures.

The Space Modernization Strategy is based on an integrated approach that reflects the commonality of Space interests and efforts found among Training and Doctrine Command (TRADOC) proponent schools and centers, and the U.S. Army Space and Missile Defense Command (SMDC). The role of SMDC, as the Army's proponent for Space, is to integrate research, development and acquisition efforts, modernization strategies and master plans into a single Army strategy that eliminates duplication of effort in leveraging Space capabilities and allows the Army Space community to speak with one voice within the Army as well as in Joint and national forums.

The foundation of the integrated strategy is constructed of documents such as the 2002 Army Modernization Plan, Army Space Master Plan, Objective Force concepts and goals, Objective Force unit of action, Objective Force unit of employment, the former CINCSPACE Integrated Priority List, Defense Planning Guidance, Quadrennial Defense Review, Army Transformation and TRADOC seminar wargames, lessons learned and proponent modernization plans. The Space Modernization Strategy was developed through an analysis of key documents that included the March 2002 draft TRADOC Objective Force Capabilities, November 2001 CINCSPACE Integrated Priority List, August 2001 Defense Planning Guidance and the 2001 Quadrennial Defense Review. After analyzing these documents from a standard mission approach, we identified the specified and implied Space tasks from each document and compared them with the Space capabilities that were projected to reach maturity within the next 10 years. The results were placed into seven Space operational areas: satellite communications; intelligence, surveillance and reconnaissance; blue force tracking; missile warning; Space control: position, navigation and timing; and weather, terrain and environmental monitoring.

Space operation areas were then prioritized on the basis of their support of Joint Space priorities, how they reflected the Space priorities identified in the key documents named above, and the frequency with which they satisfied draft TRADOC Objective Force Capabilities. Figure 1 displays how each of the principal inputs to the strategy addressed the seven Space operation areas. For example, satellite communications was a high priority in the Integrated Priority List, Quadrennial Defense Review and Defense Planning

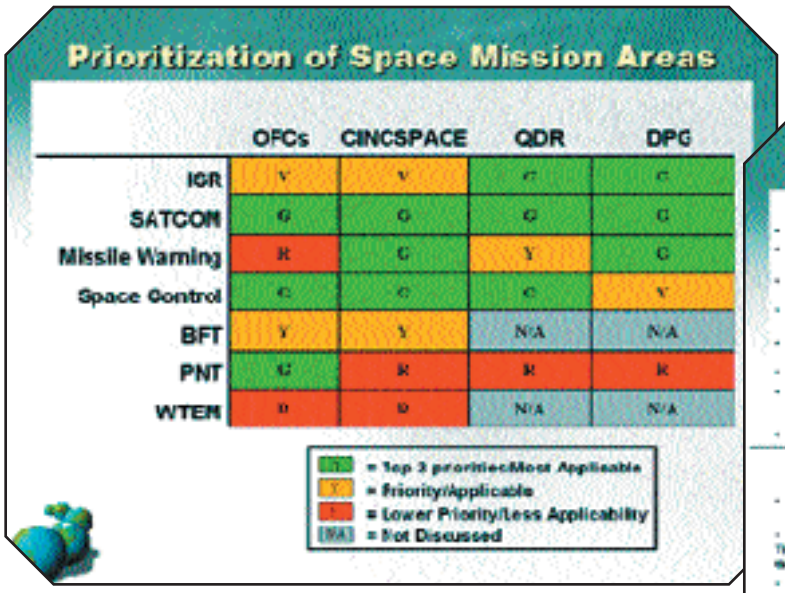


Figure 1

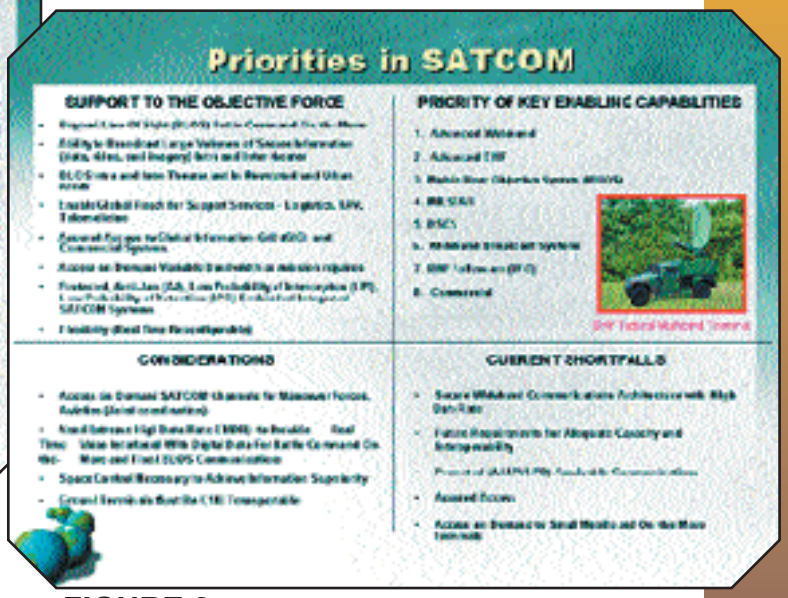


FIGURE 2

Guidance, and satisfied the most draft TRADOC Objective Force Capabilities. Another example was the weather, terrain and environmental monitoring capabilities that enable many of those but were neither among the then CINCSPACE priorities nor even discussed in the Quadrennial Review and Defense Planning Guidance. Figure 1 shows the priorities that resulted from the analysis were: satellite communications; Space control; intelligence, surveillance and reconnaissance; missile warning; position, navigation and timing; blue force tracking; and weather, terrain and environmental monitoring. This part of the analysis gave us the overall priorities for Space. However, in each one of those mission areas there are several programs under development. The need to identify what the priority should be in each of those separate mission areas drove us to conduct a second phase.

The second phase of the analysis involved linking current and projected Space systems or capabilities within each of the Space operation areas to each of the specified and implied Space tasks. By applying the same methodology that was used in the first part of the analysis, the systems that supported the greatest number of tasks received a higher priority over one that only supported a few tasks. Detailed analysis charts were developed for each Space operation area as shown in Figure 2. The charts depict at a glance the current shortfalls in capabilities, the priority of each key enabling Space system or capability, the support they provide to the Objective Force and the considerations that must be addressed in order to deliver a particular capability to the Objective Force. Because of the number of stakeholders in the Space community, the recommended priority is only a suggested listing of enabling systems or capabilities based upon the SMDC underlying analysis. The prioritization within any domain is the responsibility of the individual proponent for that particular domain.

The results of the analysis for the Space Modernization Strategy were staffed to other SMDC major subordinate elements; the Army staff G2, G3 and G6; I Corps; and TRADOC schools and centers. The final results were presented in June 2002 to the TRADOC and SMDC co-chaired Space and Missile Defense three-star Senior Advisory Group, which approved the Space priorities. As the Army Space community conceives and develops capabilities to support the Interim, Objective and Legacy forces, the Space Modernization Strategy, through this prioritization process, helps to focus efforts and resources on the areas that will best enable the transitioning force. The Space Modernization Strategy is an evolving process that is linked in change to the annual revisions of its foundation documents. SMDC will continue to ensure that the strategy corresponds to the individual proponent's requirements and master plans as well as supporting Joint priorities. SMDC will update the Space Modernization Strategy in 2003 using a Space planning process currently under development. Bob Clarke's article, "SMDC Moves into Space Planning for Army Transformation" will discuss this new process.

Karen Oliver currently serves in the U.S. Army Space and Missile Defense Command, Force Development and Integration Center in Arlington, Va., managing the training program for the Multi-Mission Mobile Processor. Her professional experience includes 22 years at the Army Air Defense Artillery School developing and managing training for Command, Control, Computers, Communications, and Intelligence systems and Short Range Air Defense systems.